

**REMARKS**

This is in response to the Office Action mailed on October 15, 2008, in which claims 1, 3 and 5-26 were pending. Claims 1, 3, 5-22, 25 and 26 were rejected as non-statutory subject matter, claims 1 and 13 were rejected as indefinite, and claims 1, 3, 5, 7-11 and 14-23 were rejected over the prior art. The claims are amended to clarify the invention responsive to each of these rejections, claim 27 is added, and claims 7 and 26 are canceled. Basis for new claim 27 is found at paragraph 6.6.2 of the specification, and no new matter is added. As explained further below, all of pending claims 1, 3, 5, 6, 8-25 and 27 are in condition for allowance, and reconsideration and notice to that effect are respectfully requested.

Method claims 1, 3 and 5-22 were rejected as being non-statutory subject matter, as neither tied to another statutory category or transforming underlying subject matter. See May 15, 2008 Love memo. See also *In re Bilski*, 545 F.3d 943, 88 U.S.P.Q.2d 1385 (Fed. Cir. 2008) (en banc) (“A claimed process is surely patent-eligible under § 101 if: (1) it is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing.”). Claim 1 is amended in two ways responsive to this rejection. Firstly, the limitation “in a computer processor” is added to the active steps. This clearly ties the method claim to a particular machine making it a statutory “process”. Secondly, the method is clarified to be “for computer recognition of a physical object depicted within the source digital image”, such that the data of the method is “concrete” in accordance with *State St. Bank & Trust Co. v. Signature Fin. Group*, 149 F.3d 1368, 1370 (Fed. Cir. 1998). See *Bilski*, (noting that, though not a sufficient inquiry, “looking for ‘a useful, concrete and tangible result’ may in many instances provide useful indications of whether a claim is drawn to a fundamental principle or a practical application of such a principle.”) With this amendment, the rejection of claims 1, 3 and 5-22 should be withdrawn.

The Office Action rejected claims 25 and 26 as being non-statutory subject matter as reading on a “carrier wave” and being non-statutory under *In re Nuijten*. The Office Action stated, “The examiner suggests amending the claims to embody the program on ‘computer-readable medium’ or equivalent...”. While noting that a carrier wave, perhaps itself non-statutory under *In re Nuijten*, would necessarily become statutory when “recorded” as required in the original language, Claim 25 is

responsively amended as suggested in the Office Action, replacing “recorded on a carrier usable in a computer” with “recorded on a computer readable medium.” The rejection of claims 25 and 26 as non-statutory should be withdrawn.

Claims 1 and 13 were rejected as indefinite. In claim 1, the Office Action found the language “at least one detail image” in the preamble to be at odds with the term “at least two detail images” in the claim body. The term in the preamble is amended to “at least two detail images”, obviating this rejection. Also in claim 1, the term “unique tree structure” was found indefinite as not clearly specifying the data that form the tree structure. Claim 1 as amended clarifies between the tree structure of wavelets coefficients and the tree structure of salience values, with both tree structures referenced in the claim. The amendment to claim 1 is believed to obviate this rejection. In claim 13, the Office Action stated that it would be more accurate to replace the subscript  $k$  with  $j$ . Claim 13 is responsively amended in this way. The rejection of claims 1 and 13 as indefinite should now be withdrawn.

Claims 1, 3, 5, 7-11 and 14-23 were rejected as obvious over Tian in view of Zeng. Claim 6 was rejected as obvious over Tian/Zeng in further view of Lynch. Claims 24-26 were rejected as obvious over Tian/Zeng in further view of Mitchel.

First of all, it should be noted it would not be obvious to combine Tian and Zeng. Tian relates to the detection of interest points in an image, used for example for image indexing, whereas Zeng relates to the compression of images. The goals achieved by these documents are far away from each other, and one skilled in the art would have no motivation to combine them. The Office Action states that the combination would be obvious because both Zeng and Tian “are directed digital image encoding based on to the Haar wavelet transform”, but Applicant does not believe that the mere fact that Tian and Zeng could be used on the same Haar wavelet transform is sufficient reason (motivation or suggestion) to make the claimed combination.

Additionally, independent claims 1, 23 and 25 are amended to include a limitation similar to the limitation of former claim 7, but additionally interrelating the use of a tree structure of wavelets coefficients and the use of a tree structure of salience values to select at least one point of interest. According to the invention, the selection of at least one point of interest implements:

- construction of at least one salience map, assigning salience values to the wavelet coefficients from the tree structure of wavelets coefficients, a salience value representing the interest of the wavelet coefficient;
- construction of a tree structure of said salience values; and
- analysis of the tree structure of said salience values.

Neither Tian nor Zeng, alone or in combination with each other or other cited art, discloses the use of a tree structure of wavelets coefficients and the use of a tree structure of salience values to select at least one point of interest. With particular regard to former claim 7, the Office Action stated,

“As to claim 7, Tian teaches said selection step implements a step (page 5 section 3.3) for the construction of at least one salience map (Fig. 4, Fig.6 f), assigning said wavelet coefficients ( page 5 section 3.3 step 2: for each wavelet coefficient, find the maximum child coefficient to construct a salient point) a salience value representing its interest.”

To the extent that Tian might teach a tree structure, it does not disclose or suggest using a tree structure of wavelets coefficients to assign salience values and then constructing and analyzing a tree structure of the salience values. As neither of the cited documents disclose these steps, claims 1, 23 and 25 as amended are non obvious and should be allowed.

Lynch et al. relates to the compression/decompression of data, using a ZeroTree type wavelet transform. As the combination of Tian and Zeng is not relevant toward claim 1 as amended, the combination of Tian, Zeng and Lynch is not relevant toward claim 6, which depends on claim 1.

Mitchel relates to the image processing using a Quadtree type algorithm. Once again, as the combination of Tian and Zeng is not relevant toward claim 1 as amended, the combination of Tian, Zeng and Lynch is not relevant toward claims 24 and 25.

The application containing pending claims 1, 3, 5, 6, 8-25 and 27 is in condition for allowance. Reconsideration and notice to that effect is respectfully requested. The Examiner is invited to contact the undersigned at the telephone number listed below if such a call would in any way facilitate allowance of the application.

Respectfully submitted,

SHEWCHUK IP SERVICES, LLC

Inventor: LAURENT et al.

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By /JDS/

Jeffrey D. Shewchuk, Reg. No. 37,235  
3356 Sherman Ct., Ste. 102  
Eagan, MN 55121  
Telephone: (651) 331-9558  
Fax: (651) 688-3348

JDS: